
June 2010

Managing Pests in Lawns and Gardens

Ontario's cosmetic pesticides ban took effect April 22, 2009. While it means that many herbicides, fungicides and insecticides can no longer be sold or used for cosmetic purposes on lawns and gardens, you can still have a beautiful lawn and garden using natural methods and greener alternatives.

Natural methods for managing pests

Maintaining a healthy lawn and garden is your best defence against unwanted weeds and pests. Try the 12 tips for a healthier lawn and good gardening practices at www.ontario.ca/additup or call the ministry's Public Information Centre for copies.

Having a green and healthy lawn now has a new meaning. It's a new way of thinking that takes a bit more planning, but it's worth the effort.

Simply using proper mowing, aeration, watering, fertilization and seeding techniques produces a healthy, thick lawn that can discourage weeds and will be better able to resist insect infestations.

It is important to remember that insects are a natural part of lawns. Many beneficial insects live in and around your lawn and garden. They can help maintain the health of your garden, attract birds, pollinate plants and reduce unwanted pests. Regular inspection of your lawn and garden can help detect insect infestation problems. Look for signs of insect-related problems on leaves, stems, roots, thatch and soil.

Ask a garden expert or your local garden centre for advice on managing pests. Many lawn care companies and landscapers can also offer advice and services.

Controlling Plants Poisonous to the Touch

Domestic products which contain glyphosate or glufosinate ammonium in ready-to-use containers are allowed for use around the home or cottage to control plants poisonous to the touch, such as poison ivy. These products have been placed in Class 7 and are called 'controlled sales' products. Controlled sales products have both cosmetic and non-cosmetic uses on their labels. Under the ban, Class 7 products are only allowed for non-cosmetic uses. For example, the use of a pesticide to control poison ivy is allowed, but it cannot be used on lawns, gardens, patios or driveways to control other types of weeds.

Lower risk pesticides and biopesticides

Gardeners can still purchase and use certain lower risk pesticides and biopesticides to manage weeds, insects and plant diseases. The biopesticides are those designated by Health Canada's Pest Management Regulatory Agency. Lower risk pesticides have characteristics such as low toxicity to humans, minimal impact to the environment, and act in a non-toxic way in controlling intended pests.

These products are listed in Class 5 (less hazardous) and Class 6 (least hazardous) and contain ingredients listed in Class 11 under Ontario Regulation 63/09. You can view these lists in their entirety on the ministry's website at www.ontario.ca/pesticideban. To search for a specific product, use the new database on the ministry website: <http://app.ene.gov.on.ca/pepsis>.

Certain lower risk pesticides and biopesticides that can be used to manage some common pests of lawns and gardens are provided in the attached chart. Note that the products on the list may change as newly registered pesticides are classified for sale and use in Ontario, or as products are reclassified or declassified.

Under provincial pesticide legislation, a pesticide must be registered under the *Pest Control Products Act* administered by Health Canada's Pest Management Regulatory Agency and classified for legal sale and use in Ontario. These pesticides must only be used according to label directions.

For more information call:

Public Information Centre
Ministry of the Environment
Tel: 416-325-4000 or 1-800-565-4923

Available Domestic Products that are Lower Risk or Biopesticides for Common Lawn and Garden Pests

Location	Pest(s)	Ingredient	Products Containing Ingredient (Registration #)	General Information
Lawns	Weeds (use only to control specific broadleaf weeds and grasses identified on the product label)	Corn gluten meal	<ul style="list-style-type: none"> Amaizeingly Green Weed n' Feed Fertilizer (2008055C) Bioprotec Inhib (29144) C-I-L Golfgreen Bio-Weed & Lawn Fertilizer 9-0-0 with 98% Corn Gluten (2009053C) Gogreen AMAZEINGLY Green Corn Gluten Meal Herbicide (28647) Green Earth EctoTurf BioWeed and Feed Lawn Fertilizer 9-0-0 with 98% Corn Gluten (2009052C) Nutrite Pre-Emergent Crabgrass Weed Seed Germination Inhibitor (27727) President's Choice Weed Seed Inhibitor & Lawn Fertilizer (2008049C) Scotts Turf Builder Lawn Fertilizer 10-0-0 with Weed Prevent (2009025C) Scotts Turf Builder Weed Prevent Corn Gluten Meal Herbicide (29060) Turfmaize Bioweed N'Feed Lawn Fertilizer 9-0-0 (2007001C) Turfmaize Pre-Emergent Weed Seed Germination Inhibitor With Corn Gluten (27491) 	Apply in early spring (when forsythia is in bloom), late summer and early fall when soil is moist and rainfall is expected within 2 days after application
		Acetic acid	<ul style="list-style-type: none"> Eco-Clear For Fast Acting Weed Control (26522) Green Earth Weed & Grass Killer Ready-To-Use (29054) Grotek Elimaweed Ready To Use Non Selective Herbicide (28807) Munger Horticultural Vinegar (29406) 	<p>Spot treat individual weeds</p> <p>Avoid contact with desirable plants</p> <p>Apply to young growing weeds and repeat as necessary for established weeds</p>
		Soap (ammonium soaps of fatty acid)	<ul style="list-style-type: none"> Finalsan Concentrate (29017) 	<p>Spot treat individual weeds</p> <p>Avoid contact with desirable plants</p> <p>Apply to young growing weeds during warm and dry conditions</p>
		<i>Sclerotinia minor</i>	<ul style="list-style-type: none"> Sarritor Selective Biological Lawn Weed Killer (28546) 	<p>For spot application</p> <p>Apply when daytime temperatures are 18-24°C and rainfall or watering occurs within 12 hours of application</p>

Location	Pest(s)	Ingredient	Products Containing Ingredient (Registration #)	General Information
Lawns	Weeds (use only to control specific broadleaf weeds and grasses identified on the product label)	Iron (as FeHEDTA)	<ul style="list-style-type: none">Neu1173H (29539)Scotts Ecosense Weed-B-Gon Ready-To-Use Weed Control (29694)Scotts Ecosense Weed-B-Gon Ready-To-Use Weed Control with Quick Connect Sprayer (29695)	Ensure lawn is well watered prior to application Do not apply if temperature is over 30°C
	Moss	Ferrous sulphate	<ul style="list-style-type: none">Greenleaf Moss Control (25250)Scotts Turf Builder Lawn Fertilizer 22-2-2 With 5.75% Iron And Moss Control With 17.5% Ferrous Sulphate (2002013C)Wilson Hose Spray Moss Killer & Lawn Food 5-0-0 (920003C)	Should be applied in early spring prior to rainfall
		Soap (potassium salts of fatty acid)	<ul style="list-style-type: none">Safer's De-Moss Moss Killer Herbicide (18418)	Wet moss area before applying
		Iron (as FeHEDTA)	<ul style="list-style-type: none">Neu1173H (29539)Scotts Ecosense Weed-B-Gon Ready-To-Use Weed Control (29694)Scotts Ecosense Weed-B-Gon Ready-To-Use Weed Control with Quick Connect Sprayer (29695)	Ensure lawn is well watered prior to application Do not apply if temperature is over 30°C
	White grubs (e.g., larvae of European chafer, Japanese beetles)	Nematodes (naturally occurring microscopic worms that are exempt under the <i>Pesticides Act</i> and Regulation 63/09.)	Can be purchased at most garden centres	Apply nematodes if larvae are present Apply in late summer
	Crane fly larva			Apply nematodes if larvae are present Apply in late summer to early fall
	Bluegrass billbug			Apply nematodes if larvae are present Apply mid to late summer
Driveways Patios Sidewalks	Weeds (use only to control specific broadleaf weeds and grasses identified on the product label)	Fatty acid (herbicial soap)	<ul style="list-style-type: none">Safer's Superfast Patio Weed Killer (24333)Safer's Superfast Patio Weed Killer RTU (23775)Safer's Superfast Patio Weed Killer (Fast Acting) (23776)Safer's Topgun Weedkiller (23254)Safer's Topgun Weed Killer (Fast Acting) (22244)Safer's Topgun Weed Killer Herbicide (Fast Acting) (22245)	Spot treat individual weeds Avoid contact with desirable plants Do not apply if rainfall is expected within 2 hours
		Soap (ammonium soaps of fatty acid)	<ul style="list-style-type: none">Finalsan Concentrate (29017)Scotts Ecosense Pathclear Herbicidal Soap Concentrate Grass & Weed Killer (29301)Scotts Ecosense Pathclear Herbicidal Soap Ready-To-Use 4 in 1 (29302)	Thorough coverage of weed with spray is important Avoid contact with desirable plants

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Driveways Patios Sidewalks	Weeds (use only to control specific broadleaf weeds and grasses identified on the product label)	Acetic acid	<ul style="list-style-type: none"> Eco-Clear For Fast Acting Weed Control (26522) Green Earth Weed & Grass Killer Ready-To-Use (29054) Grotek Elimaweed Ready To Use Non Selective Herbicide (28807) Munger Horticultural Vinegar (29406) President's Choice Weed Controller Herbicide (27109) Scotts Ecosense Pathclear Grass & Weed Control Spray (27933) Scotts Ecosense Pathclear Grass & Weed Control Spray With Pull'n Spray Applicator (28179) Scotts Ecosense Pathclear Grass & Weed Control Spray With Quick Connect Sprayer (28178) 	<p>Spot treat individual weeds</p> <p>Avoid contact with desirable plants</p>
	Moss	Soap (ammonium soaps of fatty acid)	<ul style="list-style-type: none"> Finalsan Concentrate (29017) Scotts Ecosense Moss-B-Gon Herbicidal Soap Concentrate Moss & Algae Killer (29303) Scotts Ecosense Pathclear Herbicidal Soap Ready-To-Use 4 in 1 (29302) 	<p>Completely cover moss and algae with spray</p> <p>Avoid contact with desirable plants</p> <p>Do not apply to moss or algae in lawns</p>
	Common ragweed	Sodium chloride	<ul style="list-style-type: none"> Adios Ambros Domestic WSG (28712) 	<p>Apply prior to flowering when temperature is above 24°C</p> <p>Can also be used to control common ragweed on vacant lots</p> <p>Apply thoroughly to entire plant</p>
Gardens, vegetable and flowering plants, ornamental plants	Weeds (use only to control specific broadleaf weeds and grasses identified on the product label)	Fatty acid (herbicidal soap)	<ul style="list-style-type: none"> Safer's Superfast Patio Weed Killer (24333) Safer's Superfast Patio Weed Killer RTU (23775) Safer's Superfast Patio Weed Killer (Fast Acting) (23776) Safer's Topgun Weedkiller (23254) Safer's Topgun Weed Killer (Fast Acting) (22244) Safer's Topgun Weed Killer Herbicide (Fast Acting) (22245) 	<p>Spot treat individual weeds</p> <p>Avoid contact with desirable plants</p> <p>Do not apply if rainfall is expected within 2 hours</p>
		Soap (ammonium soaps of fatty acid)	<ul style="list-style-type: none"> Finalsan Concentrate (29017) Scotts Ecosense Pathclear Herbicidal Soap Concentrate Grass & Weed Killer (29301) Scotts Ecosense Pathclear Herbicidal Soap Ready-To-Use 4 in 1 (29302) 	<p>Thorough coverage of weed with spray is important</p> <p>Avoid contact with desirable plants</p>

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Gardens, vegetable and flowering plants, ornamental plants	Weeds (use only to control specific broadleaf weeds and grasses identified on the product label)	Acetic acid	<ul style="list-style-type: none"> Eco-Clear For Fast Acting Weed Control (26522) Green Earth Weed & Grass Killer Ready-To-Use (29054) Grotek Elimaweed Ready To Use Non Selective Herbicide (28807) Munger Horticultural Vinegar (29406) Scotts Ecosense Pathclear Grass & Weed Control Spray (27933) Scotts Ecosense Pathclear Grass & Weed Control Spray With Pull'n Spray Applicator (28179) Scotts Ecosense Pathclear Grass & Weed Control Spray With Quick Connect Sprayer (28178) 	<p>Spot treat individual weeds</p> <p>Avoid contact with desirable plants</p>
	Insects, such as aphids, whiteflies and mealy bugs (use only to control insects on specific plants identified on the product label)	Soap (alkanolamine salts of fatty acid or potassium salts of fatty acid)	<ul style="list-style-type: none"> Bioprotec Sop Insecticidal Soap (27963) Green Earth Insecticidal Soap (21111) Green Earth Insecticidal Soap Hose Spray (21321) Green Earth Ready-To-Spray Insecticidal Soap (21112) Insect Stop Insecticidal Soap (26470.03) Pro Insecticidal Soap Concentrate (27812) Safer's 3 In 1 Garden Spray Fungicide, Insecticide & Miticide Ready-To-Use (27894) Safer's Aphid & Whitefly Killer (19444) Safer's Insecticidal Soap (14668) Safer's Insecticidal Soap (23651) Safer's Rose & Flower Insecticide (19929) Safer's Rose & Flower Insecticide (20793) Safer's Rose & Flower Insecticide R.T.U. (18355) Safer's Spider Mite Spray (19445) Scotts Ecosense Bug-B-Gon Insecticidal Soap Concentrate (28377) Scotts Ecosense Bug-B-Gon Insecticidal Soap Ready-To-Spray Concentrate (29272) Scotts Ecosense Bug-B-Gon Insecticidal Soap Ready-To-Use (28376) Scotts Ecosense Bug-B-Gon Insecticidal Soap Ready-To-Use with Pull'n Spray Applicator (29269) Scotts Ecosense Bug-B-Gon Insecticidal Soap Ready-To-Use with Quick Connect Sprayer (29271) Zap! Insecticidal Soap (27755) 	<p>Apply directly to insects when infestation first sighted</p> <p>Do not apply to sensitive plant species</p>

Location	Pest(s)	Ingredient	Products Containing Ingredient (Registration #)	General Information
Gardens, vegetable and flowering plants, ornamental plants	Mites	Sulphur	<ul style="list-style-type: none"> Green Earth Garden Fungicide Ready To Use (21880) Green Earth Garden Sulphur Fungicide/Miticide(21890) King Eco-Way Fruit Tree & Garden Fungicide Spray or Dust (29572) King Eco-Way Rose & Flower Fungicide Dust (29571) Later's Garden Sulphur Fungicide (5293) Safer's Sulphur Dust Fungicide Miticide (19703) Safer's 3 In 1 Garden Spray Fungicide, Insecticide & Miticide Ready-To-Use (27894) 	Apply to infested ornamental plants or tomatoes
	Whitefly	Sulphur	<ul style="list-style-type: none"> Safer's 3 In 1 Garden Spray Fungicide, Insecticide & Miticide Ready-To-Use (27894) 	Apply directly to insects when infestation first sighted
	Slugs and snails	Ferric sodium	<ul style="list-style-type: none"> Safer's Slug & Snail Killer (28775) 	Apply to area of infestation and around perimeter of garden Most effective when used in the early morning or evening
		Ferric phosphate	<ul style="list-style-type: none"> Escar-Go Slug And Snail Bait (29120) Safer's Slug & Snail Bait (26240) Scotts Ecosense Slug-B-Gon Slug & Snail Bait (28375) 	Apply evenly over moist soil nearby where slugs and snails are feeding on plants
		Copper barriers (copper strips) (barriers and strips are exempt under the <i>Pesticides Act</i> and Regulation 63/09)	Can be purchased at most garden centres	Place in garden beds or directly around plants
	Slugs	Silicon dioxide (diatomaceous earth)	<ul style="list-style-type: none"> Green Earth Slug And Bug Insect Killer Dust (26622) Insecolo All Purpose Insecticide (21149) King Eco-Way Slug Killer (29562) ProGreen Earth S.D. Insect Dust (28746) Raid Earthblends Ant & Earwig Dust (27185) 	Apply around gardens where slugs are feeding Do not apply to food crops, can be applied around perimeter of vegetable gardens.
	Caterpillars (use only to control caterpillars on specific plants identified on the product label)	<i>Btk (Bacillus thuringiensis kurstaki)</i>	<ul style="list-style-type: none"> Bioprotec Eco (27251) <i>Btk</i>-Bioinsecticide (27251.01) Safer's <i>Btk</i> Biological Insecticide (24536) 	Apply when larvae are young and small Apply evenly to leaves and repeat application if necessary

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Gardens, vegetable and flowering plants, ornamental plants	Caterpillars (use only to control caterpillars on specific plants identified on the product label)	Silicon dioxide (diatomaceous earth)	<ul style="list-style-type: none"> Green Earth Slug And Bug Insect Killer Dust (26622) Insecolo All Purpose Insecticide (21149) ProGreen Earth S.D. Insect Dust (28746) Raid Earthblends Ant & Earwig Dust (27185) 	<p>Apply around gardens where caterpillars are found</p> <p>Do not apply to food crops. Can be applied around perimeter of vegetable gardens</p>
	Earwigs	Silicon dioxide (diatomaceous earth)	<ul style="list-style-type: none"> Green Earth Slug And Bug Insect Killer Dust (26622) Insecolo All Purpose Insecticide (21149) Insectigone Earwig Killer (21341) ProGreen Earth S.D. Insect Dust (28746) Raid Earthblends Ant & Earwig Dust (27185) 	<p>Apply to area where earwigs are found</p> <p>Do not apply to food crops. Can be applied around perimeter of vegetable gardens.</p>
	Diseases, such as black spot, powdery mildew and rust (use only to control disease on specific plants identified on the product label)	Copper as elemental, present as tribasic copper sulphate	<ul style="list-style-type: none"> Green Earth Bordo Copper Spray (17482) 	<p>Apply to plants at first sign of disease</p> <p>Apply up to one day before harvest of fruits</p>
		Sulphur	<ul style="list-style-type: none"> Green Earth Garden Fungicide Ready To Use (21880) Green Earth Garden Sulphur Fungicide/Miticide (21890) King Eco-Way Fruit Tree & Garden Fungicide Spray or Dust (29572) King Eco-Way Rose & Flower Fungicide Dust (29571) Later's Garden Sulphur Fungicide (5293) Safer's 3 In 1 Garden Spray Fungicide, Insecticide & Miticide Ready-To-Use (27894) Safer's Defender Garden Fungicide II (20812) Safer's Defender Garden Fungicide Concentrate (19691) Safer's Defender Garden Fungicide Ready To Use (19061) Safer's Defender Rose and Flower Fungicide (29429) Safer's Sulphur Dust Fungicide Miticide (19703) 	<p>Apply to plants at first sign of disease</p> <p>Apply up to one day before harvest of vegetables</p>
		<i>Bacillus Subtilis</i> Qst 713	<ul style="list-style-type: none"> Serenade Garden Ready to Use (28629) Serenade Garden Concentrate (28628) 	<p>Apply to ornamental plants or vegetables at recommended intervals and/or when conditions are conducive for disease development.</p> <p>Can be applied up to and including the day of harvest.</p>

Location	Pest(s)	Ingredient	Products Containing Ingredient (Registration #)	General Information
Fruit Trees and Ornamental Shrubs	Insects, such as scale, mites and aphids (use only to control insects on specific plants identified on the product label)	Dormant oil (mineral oil)	<ul style="list-style-type: none"> Green Earth Horticultural Oil Insect Spray (21348) Later's Dormant Oil Spray (6325) Liquid Dormant Oil Spray (25307) Plant Products Dormant Oil Spray Emulsifiable Insecticide (10443) Wilson Liquid Dormant Oil Spray Insecticide (9221) 	<p>Apply to plants in early spring when danger of frost is past, before leaf buds show green at tips</p> <p>Can be used to control pests on woody ornamentals during growing season</p>
		Soap (alkanolamine salts of fatty acid or potassium salts of fatty acid)	<ul style="list-style-type: none"> Bioprotec Sop Insecticidal Soap (27963) Green Earth Insecticidal Soap (21111) Green Earth Insecticidal Soap Hose Spray (21321) Green Earth Ready-To-Spray Insecticidal Soap (21112) Insect Stop Insecticidal Soap (26470.03) Pro Insecticidal Soap Concentrate (27812) Safer's 3 In 1 Garden Spray Fungicide, Insecticide & Miticide Ready-To-Use (27894) Safer's Aphid & Whitefly Killer (19444) Safer's Insecticidal Soap (14668) Safer's Insecticidal Soap (23651) Safer's Rose & Flower Insecticide (20793) Safer's Spider Mite Spray (19445) Scotts Ecosense Bug-B-Gon Insecticidal Soap Concentrate (28377) Scotts Ecosense Bug-B-Gon Insecticidal Soap Ready-To-Spray Concentrate (29272) Scotts Ecosense Bug-B-Gon Insecticidal Soap Ready-To-Use (28376) Scotts Ecosense Bug-B-Gon Insecticidal Soap Ready-To-Use with Pull'n Spray Applicator (29269) Scotts Ecosense Bug-B-Gon Insecticidal Soap Ready-To-Use with Quick Connect Sprayer (29271) Zap! Insecticidal Soap (27755) 	<p>Apply directly to insects when infestation first sighted</p> <p>Do not apply to sensitive plant species</p>
	Mites	Sulphur	<ul style="list-style-type: none"> Green Earth Garden Fungicide Ready To Use (21880) Green Earth Garden Sulphur Fungicide/Miticide (21890) King Eco-Way Fruit Tree & Garden Fungicide Spray or Dust (29572) Later's Garden Sulphur Fungicide (5293) Safer's Sulphur Dust Fungicide Miticide (19703) Safer's 3 In 1 Garden Spray Fungicide, Insecticide & Miticide Ready-To-Use (27894) 	<p>Apply to infested trees or shrubs</p> <p>Do not apply within 30 days of a dormant oil treatment</p>
	Whitefly	Sulphur	<ul style="list-style-type: none"> Safer's 3 In 1 Garden Spray Fungicide, Insecticide & Miticide Ready-To-Use (27894) 	Apply directly to insects when infestation first sighted

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Fruit Trees and Ornamental Shrubs	Slugs and snails	Ferric phosphate	<ul style="list-style-type: none"> • Escar-Go Slug And Snail Bait (29120) • Safer's Slug & Snail Bait (26240) • Scotts Ecosense Slug-B-Gon Slug & Snail Bait (28375) 	Apply evenly over moist soil nearby where slugs and snails are feeding
		Ferric sodium	<ul style="list-style-type: none"> • Safer's Slug & Snail Killer (28775) 	Most effective when used in early morning or evening
	Caterpillars	<i>Btk (Bacillus thuringiensis kurstaki)</i>	<ul style="list-style-type: none"> • Bioprotec Eco (27251) • Btk-Bioinsecticide (27251.01) • Safer's Btk Biological Insecticide (24536) 	<p>Apply when caterpillars are young and small</p> <p>Apply evenly to leaves and repeat application if necessary</p>
	Diseases, such as scab, black spot, brown rot, leaf spot, black knot, peach leaf curl and powdery mildew (use only to control disease on specific plants identified on the product label)	Copper as elemental, present as tribasic copper sulphate	<ul style="list-style-type: none"> • Green Earth Bordo Copper Spray (17482) 	<p>Apply to trees and shrubs at first sign of disease</p> <p>Apply up to one day before harvest of fruits</p>
		Lime sulphur	<ul style="list-style-type: none"> • Green Earth Lime Sulphur Concentrate (7386) • Green Earth Lime Sulphur Concentrate Insecticide/Fungicide (7386.06) • Later's Lime Sulphur Solution (6335) • Lime Sulphur (27978) • Wilson Liquid Lime Sulphur (1) (23782) 	<p>Apply before bud break to diseased trees or shrubs</p> <p>Do not apply within 30 days of a dormant oil treatment</p>
		Sulphur	<ul style="list-style-type: none"> • Green Earth Garden Fungicide Ready To Use (21880) • Green Earth Garden Sulphur Fungicide/Miticide (21890) • King Eco-Way Fruit Tree & Garden Fungicide Spray or Dust (29572) • Later's Garden Sulphur Fungicide (5293) • Safer's 3 In 1 Garden Spray Fungicide, Insecticide & Miticide Ready-To-Use (27894) • Safer's Defender Garden Fungicide II (20812) • Safer's Defender Garden Fungicide Ready To Use (19061) • Safer's Sulphur Dust Fungicide Miticide (19703) 	Apply at first sign of disease